Dong Heon Han

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Robotics Department, University of Michigan, Ann Arbor, MI 48109, USA

Robot Collectives | *Artificial Intelligence* | *Soft Robotics*

Education

- **University of Michigan** — *2029*
  PhD in Robotics — Ann Arbor, MI
- **University of Michigan** — *2025*
  MS in Mechanical Engineering — Ann Arbor, MI
- **Georgia Tech** — *2021*
  BS in Mechanical Engineering — Atlanta, GA

Experience

- **Universiy of Michigan | Robotics Department** — *May 2025 - Present*
  Research Assistant — Ann Arbor, MI
- **Universiy of Michigan | Mechanical Engineering Department** — *Aug 2023 - May 2025*
  Research Assistant — Ann Arbor, MI
- **Republic of Korea Army** — *Jan 2022 - July 2023*
  Signal Specialist — Korea
- **Seoul National University | Biosystems Engineering Department** — *Aug 2021 - Dec 2021*
  Research Assistant — Seoul, Korea
- **George W. Woodruff School of Mechanical Engineering** — *Aug 2019 - Aug 2021*
  Research Assistant — Atlanta, GA
- **Korean Institute of Machinery and Materials** — *Jun 2018 - Aug 2018*
  Research Assistant — Daejeon, Korea

Patents and Publications

C=Conference, J=Journal, P=Patent, S=In Submission, T=Thesis

[C.1] R. Zuo, M. Mehta, **D.H. Han**, D. Bruder. "Embedded Valves for Distributed Control of Soft Pneumatic Actuators". 2024 IEEE International Conference on Intelligent Robots and Systems (IROS)

[C.2] **D.H. Han**, S.J. Byeon, K.D. Kim, G.H. Han, M.H. Cha, Y.J. Park. "Development of Path Tracking Control Algorithm for Tractor Autonomous Driving". 2021 Korean Society for Agricultural Machinery Conference

[P.1] **Blowers With Variable Nozzles**. US 11668311 B2. Issued June 6, 2023.

[T.1] **D.H. Han**. "Towards a universal sensing framework for soft robots" 2025

[S.1] **D.H. Han**, M. Mehta, R. Zuo, Z. Wanger, and D. Bruder. "An Enhanced Proprioceptive Method for Soft Robots Integrating Bend Sensor and IMU"

[S.2] **D.H. Han**, D. Bruder. “Shape-Morphing Strain Sensing Structure for Enhanced Proprioception in Soft and Wearable Robots”

[S.3] **D.H. Han**, X. Xu, X. Huang. “Optimized Shape Morphing and Adaptive Locomotion Control in Centimeter-Scale Untethered Soft Robots”

Honors and Awards

- **VIP Innovation Competition, 1st Place in Hardware, Devices & Robotics Track** — *Apr 2021*
  Georgia Tech
  ◦ Awarded to the most innovative and active research team in Georgia Tech
- **President’s Undergraduate Research Award** — *Oct 2020*
  Georgia Tech
  ◦ Research excellence scholarship as an undergraduate researcher at Georgia Tech
- **Georgia Korean American Grocers Association Scholarship Award** — *Dec 2016*
  KAGRO
  ◦ Awarded for academic excellence and leadership in community service
- **Kappa Mu Epsilon** — *May 2018*
  Mathematics honor society